

WHAT IS CLAIMED IS:

1. An IDSL line card comprising:
at least one IDSL line interface having an adjustable
bit rate comprising:
 - 5 a microcontroller operable to control the bit
rate associated with the at least one line interface,
the microcontroller comprising:
 - a processor; and
 - a memory associated with the processor and
10 storing a rate adapter application, the rate
adapter application operable, when executed on
the processor, to:
 - 15 receive an error level associated with
transfer of data through the at least one
IDSL line interface;
 - determine that the received error level
exceeds a maximum error level; and
 - in response to determining that the
maximum error level is exceeded, adjust the
20 bit rate for the at least one IDSL line
interface and determine that a resulting
error level meets or falls below the maximum
error level.
- 25 2. The line card of Claim 1, wherein the error level
is a CRC error level.
3. The line card of Claim 1, wherein the rate
20 adapter application is further operable to adjust the bit
rate, in response to determining that the maximum error
level is exceeded, by increasing or decreasing the bit
rate.

4. The line card of Claim 1, wherein at least one IDSL line interface comprises eight IDSL line interfaces.

5 5. The line card of Claim 1, wherein the rate adapter application is further operable, when executed on the processor, to access a bit rate table to determine an adjusted bit rate.

10 6. The line card of Claim 1, wherein the rate adapter application is further operable, when executed on the processor, to apply a default bit rate if the error level associated with transfer of data through at least one IDSL line interface exceeds the maximum error level and has traversed an associated bit rate table.

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7. A method for communicating data according to ISDN protocol comprising:

connecting a first IDSL line interface to a second IDSL line interface, the second IDSL line interface at a location remote from the first IDSL line interface, the first IDSL line interface having a first bit rate, and the second IDSL line interface having a second bit rate;

transmitting data between the first IDSL line interface and the second IDSL line interface;

determining that a CRC level associated with the data transfer exceeds a predetermined acceptable level; and

adjusting the second bit rate until a CRC level associated with subsequent data transfer between the first and second IDSL line interfaces meets or falls below the predetermined acceptable level.

8. The method of Claim 7, wherein connecting a first IDSL line interface to a second IDSL line interface comprises connecting an IDSL line interface at a customer's premises to an IDSL line interface at a telecommunications central office.

9. The method of Claim 7, wherein the second IDSL line interface is located at a customer's premises.

10. The method of Claim 7, wherein the first IDSL line interface is located at a customer's premises.

11. The method of Claim 7, wherein the second IDSL line interface is located within a DSLAM.

12. The method of Claim 7, wherein adjusting the second bit rate comprises accessing a bit rate table.

14. A method of establishing data communication according to ISDN protocol comprising:

- 5 connecting a first IDSL line interface to a first end of an ISDN line;
- connecting a second IDSL line interface to a second end of the ISDN line;
- 10 setting a bit transfer rate of the first IDSL line interface to a first bit rate;
- setting a bit transfer rate of the second IDSL line interface to a second bit rate;
- transmitting data between the first and second IDSL line interfaces;
- 15 determining a CRC level associated with the data transmission;
- comparing the determined CRC level to an acceptable error level;
- 20 adjusting the bit transfer rate of the second IDSL line interface in response to at least a determination based on the comparison that the CRC level associated with the data transmission exceeds the acceptable error level; and
- 25 repeating the steps of transmitting data, determining a CRC level, comparing the determined CRC level, and adjusting the bit transfer rate until the determined CRC level equals or falls below the threshold level.

- 30 15. The method of Claim 14, wherein connecting the first IDSL line interface connecting the first IDSL line interface to a first end of an ISDN line comprises connecting an IDSL line interface located at a customer's premises to the first end of an ISDN line.

16. The method of Claim 14, wherein connecting the first IDSL line interface to a first end of an ISDN line comprises connecting an IDSL line interface located remote from a customer's premises to the first end of an ISDN line.

17. The method of Claim 14, wherein adjusting the bit transfer rate comprises accessing a bit rate table.

18. The method of Claim 14, wherein transmitting data comprises transmitting at least an HDLC frame.

19. The method of Claim 14, wherein adjusting the bit transfer rate of the second IDSL line interface comprises adjusting, by the second IDSL line interface, the bit transfer rate of the second IDSL line interface.

20. The method of Claim 14, wherein adjusting the bit transfer rate of the second IDSL line interface comprises adjusting, by a computer located remote from the second IDSL line interface, the bit transfer rate of the second IDSL line interface.

21. A system for facilitating communication of data according to ISDN protocol comprising:

5 a first means located proximate a first location and a second means located proximate a second location for modulating and demodulating data exchanged between the first and second locations;

10 a line means connecting the first means and the second means for carrying data exchanged between the first and second locations according to ISDN protocol; and

15 a controller means for determining that data exchanged between the first and second means has an associated error level that exceeds a desired level and in response adjusting a bit rate associated with the second means until the associated error level reaches or falls below a threshold level.

22. An IDSL line card comprising:
at least one line interface;
an ISDN chipset electrically connected to each of the
at least one line interface;
5 a microcontroller electrically connected to the ISDN
chipset, the microcontroller comprising:
a processor; and
a memory associated with the processor and
storing a rate adapter application, the rate adapter
10 application operable, when executed on the processor
to:
receive data received by one of the at least one
line interface, the data including an error
indication;
15 determine that an error level is exceeded; and
in response to determining that the maximum error
level is exceeded, adjust the bit rate of the modem
from which data are received to a different bit rate.

23. A system for facilitating communication of data comprising:

first and second ISDN line interfaces; and

a controller comprising:

a memory; and

a rate adapter program stored in the memory, the rate adapter program operable to determine that data exchanged between the first and second IDSL line interfaces has an associated error level that exceeds a desired level and in response adjust a bit rate associated with the first IDSL line interface until the associated error level reaches or falls below a threshold level.

24. The system of Claim 23, wherein the controller comprises a personal computer.

25. The system of Claim 23, wherein the controller comprises a microcontroller stored on a line card, the line card also storing the first IDSL line interface.